

Claims:

[1] An electronic information management system configured as a computer system for providing a user attribution electronic information attributable to a user after authenticating the user, comprising a processing unit and a plurality of files,

wherein the processing unit divides each of electronic information of a user authentication information and a user attribution information into pieces, stores the pieces in separate files respectively, and saves a storage information explaining procedures of storing of the pieces in public information files, and

when the processing unit receives a request of a user attribution information, the processing unit reads out the storage information from one of the public information files, collects the pieces of the electronic information of the user authentication information from the separate files and decrypts or restores the user authentication information based on the storage information, then compares the decrypted or restored user authentication information with input user authentication information to identify the user, and collects the pieces of the electronic information of the user attribution information from the respective files and decrypts or restores the user attribution information and provides the decrypted or restored information to the user, only after the user authentication is passed.

[2] The electronic information management system according to claim 1, wherein the division of the user authentication electronic information and the user attribution electronic information is implemented by dividing the electronic information at designated bit positions into a plurality of small information elements, permuting the plurality of the information elements in an order which is designated using the secret sharing scheme algorithm, and dividing the whole of the permutation into a designated number to store the information in separate

files as electronic information blocks, characterized in that the decryption of the user authentication electronic information and the user attribution electronic information is implemented by collecting the electronic information blocks of subject electronic information from the files storing the electronic information blocks, re-permuting the information elements in original order based on the designated order, and connecting the re-permuted information elements to decrypt the original electronic information.

[3] The electronic information management system according to claim 2, wherein information compression is applied to the electronic information or the electronic information blocks when the user authentication electronic information and the user attribution electronic information are divided.

[4] The electronic information management system according to any of claims 1 to 3, wherein plural types of the user authentication information are stored, and a type and a combination of types of the user authentication information for confirmation purpose can be specified from a list stored in the public information file depending on the importance of user attribution information.

[5] The electronic information management system according to any of claims 1 to 4, wherein the electronic information can be decrypted even if between one and  $k$  files are lost, where  $k$  is an integer satisfying the relationship of  $(n - 1) > k \geq 1$ , by dividing the electronic information into  $n$  pieces and storing them in overlap in separate files.

[6] The electronic information management system according to any of claims 1 to 5, wherein the request of provision of the user attribution electronic information and the actual provision of the information are implemented through a communication terminal device.